BLAST

Basic Local Alignment Search Tool

- Your search parameters were adjusted to search for a short input sequence.

Edit and Resubmit Save Search Strategies Formatting options Download

Protein Sequence (19 letters)

Results for: lcl|43388 None(11aa) ▾   residues 117-127 of SEQ ID NO: 12

Your BLAST job specified more than one input sequence. This box lets you choose which input sequence to show BLAST results for.

Query ID
　　lcl|43388
　　lcl|43388
Description
　　None
Molecule type
　　amino acid
Query Length
　　11

Database Name
　　nr
Description
　　All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples from WGS projects
Program
　　BLASTP 2.2.22+ Citation

Reference
Stephen F. Altschul, Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.
Other reports: Search Summary [Taxonomy reports] [Multiple alignment] NEW

Search Parameters

Program	blastp
Word size	2
Expect value	200000
Hitlist size	100
Gapcosts	9,1
Matrix	PAM30
Threshold	11
Filter string	F
Genetic Code	1
Window Size	40

Database

Posted date	Jan 5, 2010 4:42 AM
Number of letters	3,507,711,756
Number of sequences	10,280,272
Entrez query	none

Karlin-Altschul statistics

Params	Ungapped	Gapped
Lambda	0.337428	0.294
K	0.26497	0.11
H	2.091	0.61

Results Statistics

Length adjustment	1
Effective length of query	10
Effective length of database	3497431484
Effective search space	34974314840
Effective search space used	34974314840

Graphic Summary
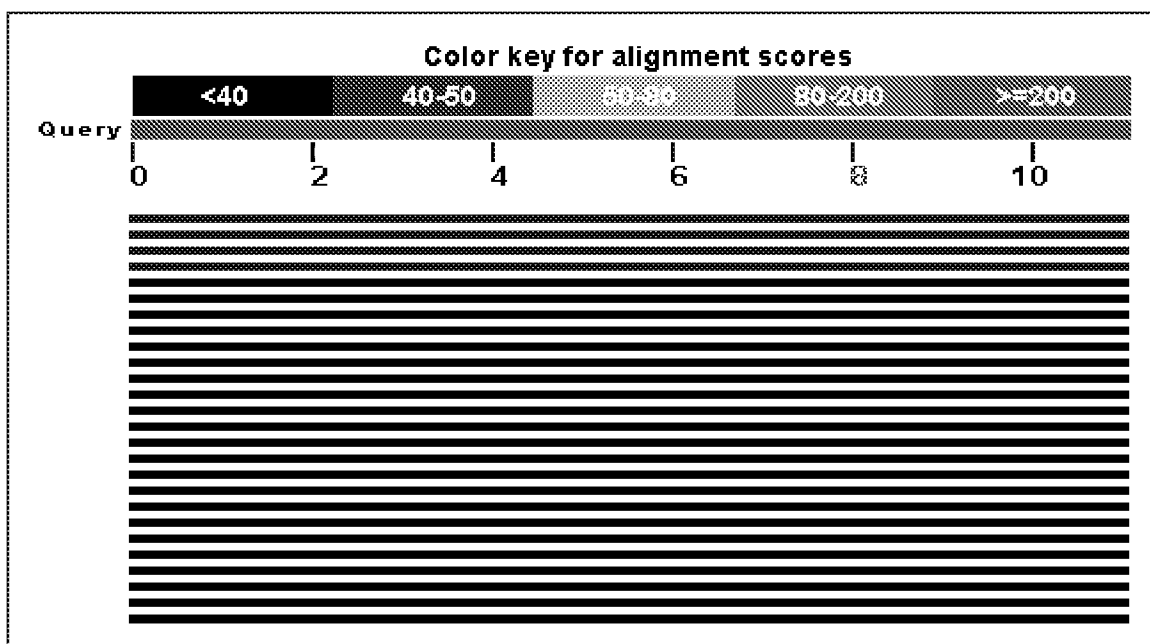Show Conserved Domains
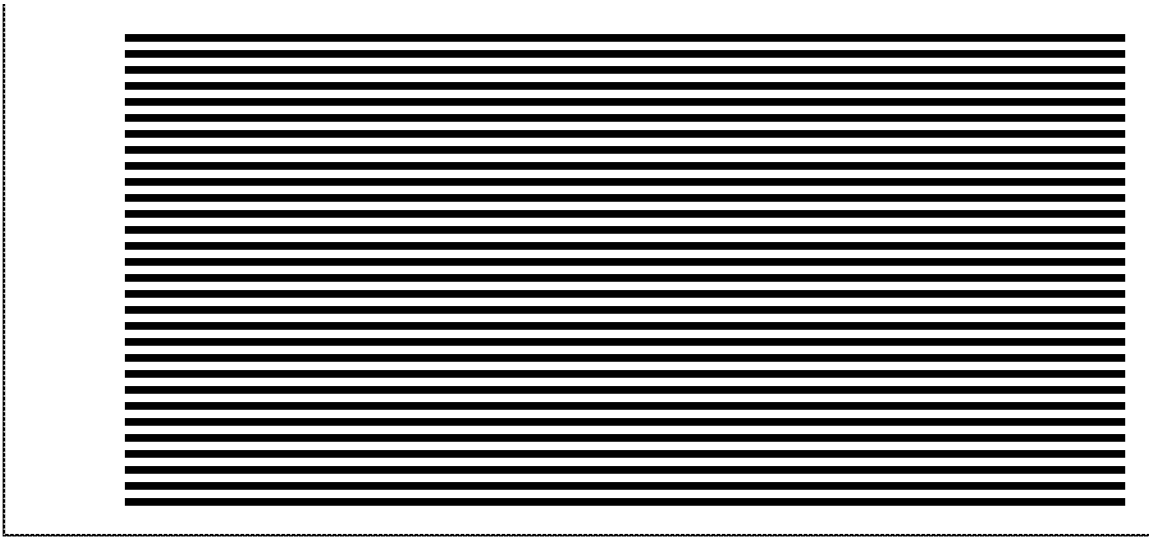No putative conserved domains have been detected

[x]

Distribution of 100 Blast Hits on the Query Sequence

[?]

An overview of the database sequences aligned to the query sequence is shown. The score of each alignment is indicated by one of five different colors, which divides the range of scores into five groups. Multiple alignments on the same database sequence are connected by a striped line. Mousing over a hit sequence causes the definition and score to be shown in the window at the top, clicking on a hit sequence takes the user to the associated alignments. New: This graphic is an overview of database sequences aligned to the query sequence. Alignments are color-coded by score, within one of five score ranges. Multiple alignments on the same database sequence are connected by a dashed line. Mousing over an alignment shows the alignment definition and score in the box at the top. Clicking an alignment displays the alignment detail.

Descriptions

		Score	E
Sequences producing significant alignments:		(Bits)	Value
gb|ACO05366.1|	middle S protein [Hepatitis B virus]	41.4	0.012
gb|ACO05365.1|	S protein [Hepatitis B virus]	41.4	0.012
gb|ACO05362.1|	large S protein [Hepatitis B virus]	41.4	0.012
gb|AAF36498.1|	S antigen [Hepatitis B virus]	41.4	0.012
gb|ACI05186.1|	S protein [Hepatitis B virus]	38.0	0.13
gb|ABZ81118.1|	S protein [Hepatitis B virus]	38.0	0.13
dbj|BAG06746.1|	hepatitis B surface antigen [Hepatitis B virus]	38.0	0.13
emb|CAM58621.1|	preS1 protein [Hepatitis B virus]	38.0	0.13
emb|CAM58620.1|	preS2 protein [Hepatitis B virus]	38.0	0.13
gb|ABE54464.1|	surface antigen [Hepatitis B virus]	38.0	0.13
gb|ABV54241.1|	S protein [Hepatitis B virus]	37.5	0.17
gb|ABV54231.1|	S protein [Hepatitis B virus]	37.5	0.17
gb|ACX69410.1|	truncated middle S protein [Hepatitis B virus]	36.3	0.42
gb|ACX69409.1|	truncated large S protein [Hepatitis B virus]	36.3	0.42
gb|ACX69392.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ACX69391.1|	middle S protein [Hepatitis B virus]	36.3	0.42
gb|ACX69390.1|	large S protein [Hepatitis B virus]	36.3	0.42
gb|ACU24886.1|	truncated S protein [Hepatitis B virus]	36.3	0.42
gb|ACU24883.1|	truncated large S protein [Hepatitis B virus]	36.3	0.42
gb|ACT90881.1|	large S protein [Hepatitis B virus]	36.3	0.42
gb|ACT79861.1|	small S protein [Hepatitis B virus]	36.3	0.42
gb|ACT79860.1|	large S protein [Hepatitis B virus]	36.3	0.42
dbj|BAH83888.1|	hepatitis B surface antigen [Hepatitis B virus]	36.3	0.42
dbj|BAH83824.1|	hepatitis B surface antigen [Hepatitis B virus]	36.3	0.42
dbj|BAH83817.1|	hepatitis B surface antigen [Hepatitis B virus]	36.3	0.42
dbj|BAH84511.1|	hepatitis B surface antigen [Hepatitis B virus]	36.3	0.42
gb|ACJ48743.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ACJ48742.1|	middle S protein [Hepatitis B virus]	36.3	0.42
gb|ACJ48741.1|	large S protein [Hepatitis B virus]	36.3	0.42
gb|ABV57421.1|	middle S protein [Hepatitis B virus]	36.3	0.42
gb|ABV57415.1|	large S protein [Hepatitis B virus]	36.3	0.42
gb|ABV57405.1|	S protein [Hepatitis B virus] >gb|ABV57406.1| ...	36.3	0.42
gb|ABV57401.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54243.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54242.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54240.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54239.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54237.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54236.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54234.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54233.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54232.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54230.1|	S protein [Hepatitis B virus] >gb|ABV57420.1| ...	36.3	0.42
gb|ABV54228.1|	S protein [Hepatitis B virus] >gb|ABV54238.1| ...	36.3	0.42
gb|ABV54226.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABV54223.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|ABO37863.1|	S protein [Hepatitis B virus] >gb|ABQ11286.1| ...	36.3	0.42
gb|ABA18692.1|	preS2/S protein [Hepatitis B virus]	36.3	0.42
gb|ABE01501.1|	S protein [Hepatitis B virus]	36.3	0.42
dbj|BAE00094.1|	large S protein [Hepatitis B virus]	36.3	0.42
gb|AAU01926.1|	preS1/preS2 surface [Hepatitis B virus]	36.3	0.42
gb|AAT28686.1|	S protein [Hepatitis B virus]	36.3	0.42
gb|AAT28685.1|	middle S protein [Hepatitis B virus]	36.3	0.42
gb|AAT28684.1|	large S protein [Hepatitis B virus]	36.3	0.42
gb|AAF15684.1|	surface antigen [Hepatitis B virus]	36.3	0.42
dbj|BAD20214.1|	S protein [Hepatitis B virus]	36.3	0.42
emb|CAE54069.1|	S protein [Hepatitis B virus]	36.3	0.42

gb|BAC98973.1|	surface antigen [Hepatitis B virus]	36.3	0.42
emb|CAA66436.1|	pre-S2 protein [Hepatitis B virus]	36.3	0.42
emb|CAA66437.1|	S protein [Hepatitis B virus]	36.3	0.42
sp|Q67926.1|HBSAG_HBVB6	RecName: Full=Large envelope protein;...	36.3	0.42
gb|ADB03191.1|	large S protein [Hepatitis B virus]	35.8	0.57
gb|ADA82552.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82551.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82550.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82543.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82542.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82541.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82537.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82536.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82535.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82534.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82533.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82532.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82531.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82530.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82529.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82522.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82521.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82520.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82513.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82512.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82511.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82510.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82509.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82508.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82502.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82501.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82500.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82499.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82498.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82497.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82496.1|	small surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82495.1|	middle surface protein [Hepatitis B virus]	35.8	0.57
gb|ADA82494.1|	large surface protein [Hepatitis B virus]	35.8	0.57
gb|ACQ82752.1|	S protein [Hepatitis B virus]	35.8	0.57
gb|ACQ82751.1|	middle S protein [Hepatitis B virus]	35.8	0.57
gb|ACQ82750.1|	large S protein [Hepatitis B virus]	35.8	0.57
gb|BAH83785.1|	hepatitis B surface antigen [Hepatitis B virus]	35.8	0.57
gb|BAH83782.1|	hepatitis B surface antigen [Hepatitis B virus]	35.8	0.57

Alignments Select All Get selected sequences Distance tree of results Multiple alignment NEW

>gb|ACO05366.1| middle S protein [Hepatitis B virus]
Length=281

 Score = 41.4 bits (90), Expect = 0.012
 Identities = 11/11 (100%), Positives = 11/11 (100%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLWVWASVR
Sbjct 214 AKYLWVWASVR 224

>gb|ACO05365.1| S protein [Hepatitis B virus]
Length=226

 Score = 41.4 bits (90), Expect = 0.012
 Identities = 11/11 (100%), Positives = 11/11 (100%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLWVWASVR

```
Sbjct  159   AKYLWVWASVR   169


>gb|ACO05362.1|   large S protein [Hepatitis B virus]
Length=400

 Score = 41.4 bits (90),  Expect = 0.012
 Identities = 11/11 (100%), Positives = 11/11 (100%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLWVWASVR
Sbjct  333   AKYLWVWASVR   343


>gb|AAF36498.1|   S antigen [Hepatitis B virus]
Length=226

 Score = 41.4 bits (90),  Expect = 0.012
 Identities = 11/11 (100%), Positives = 11/11 (100%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLWVWASVR
Sbjct  159   AKYLWVWASVR   169


>gb|ACI05186.1|   S protein [Hepatitis B virus]
Length=226

 Score = 38.0 bits (82),  Expect = 0.13
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLW WASVR
Sbjct  159   AKYLWXWASVR   169


>gb|ABZ81118.1|   S protein [Hepatitis B virus]
Length=174

 Score = 38.0 bits (82),  Expect = 0.13
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLW WASVR
Sbjct  153   AKYLWXWASVR   163


>dbj|BAG06746.1|   hepatitis B surface antigen [Hepatitis B virus]
Length=132

 Score = 38.0 bits (82),  Expect = 0.13
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLW WASVR
Sbjct  120   AKYLWXWASVR   130


>emb|CAM58621.1|   preS1 protein [Hepatitis B virus]
Length=400

 Score = 38.0 bits (82),  Expect = 0.13
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLW WASVR
Sbjct  333   AKYLWXWASVR   343


>emb|CAM58620.1|   preS2 protein [Hepatitis B virus]
Length=281

 Score = 38.0 bits (82),  Expect = 0.13
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1     AKYLWVWASVR   11
             AKYLW WASVR
Sbjct  214   AKYLWXWASVR   224
```

>**gb|ABB54464.1|** surface antigen [Hepatitis B virus]
Length=195

 Score = 38.0 bits (82), Expect = 0.13
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 143 AKYLWXWASVR 153

>**gb|ABV54241.1|** S protein [Hepatitis B virus]
Length=226

 Score = 37.5 bits (81), Expect = 0.17
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 159 AKYLWAWASVR 169

>**gb|ABV54231.1|** S protein [Hepatitis B virus]
Length=226

 Score = 37.5 bits (81), Expect = 0.17
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 159 AKYLWAWASVR 169

>**gb|ACX69410.1|** truncated middle S protein [Hepatitis B virus]
Length=270

 Score = 36.3 bits (78), Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 214 AKYLWGWASVR 224

>**gb|ACX69409.1|** truncated large S protein [Hepatitis B virus]
Length=389

 Score = 36.3 bits (78), Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 333 AKYLWGWASVR 343

>**gb|ACX69392.1|** S protein [Hepatitis B virus]
Length=226

 Score = 36.3 bits (78), Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 159 AKYLWGWASVR 169

>**gb|ACX69391.1|** middle S protein [Hepatitis B virus]
Length=281

 Score = 36.3 bits (78), Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query 1   AKYLWVWASVR 11
            AKYLW WASVR
Sbjct 214 AKYLWGWASVR 224

>**gb|ACX69390.1|** large S protein [Hepatitis B virus]
Length=400

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  333  AKYLWGWASVR  343
```

>**gb|ACU24886.1|** truncated S protein [Hepatitis B virus]
Length=215

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  159  AKYLWGWASVR  169
```

>**gb|ACU24883.1|** truncated large S protein [Hepatitis B virus]
Length=388

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  332  AKYLWGWASVR  342
```

>**gb|ACT90881.1|** large S protein [Hepatitis B virus]
Length=400

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  333  AKYLWGWASVR  343
```

>**gb|ACT79861.1|** small S protein [Hepatitis B virus]
Length=226

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  159  AKYLWGWASVR  169
```

>**gb|ACT79860.1|** large S protein [Hepatitis B virus]
Length=400

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  333  AKYLWGWASVR  343
```

>**dbj|BAH83888.1|** hepatitis B surface antigen [Hepatitis B virus]
Length=132

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query  1    AKYLWVWASVR  11
            AKYLW WASVR
Sbjct  120  AKYLWGWASVR  130
```

>**dbj|BAH83824.1|** hepatitis B surface antigen [Hepatitis B virus]
Length=132

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)
```

```
Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   120   AKYLWGWASVR   130
```

>dbj|BAH83817.1| hepatitis B surface antigen [Hepatitis B virus]
Length=132

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   120   AKYLWGWASVR   130
```

>dbj|BAH84511.1| hepatitis B surface antigen [Hepatitis B virus]
Length=132

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   120   AKYLWGWASVR   130
```

>gb|ACJ48743.1| S protein [Hepatitis B virus]
Length=226

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   159   AKYLWGWASVR   169
```

>gb|ACJ48742.1| middle S protein [Hepatitis B virus]
Length=281

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   214   AKYLWGWASVR   224
```

>gb|ACJ48741.1| large S protein [Hepatitis B virus]
Length=400

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   333   AKYLWGWASVR   343
```

>gb|ABV57421.1| middle S protein [Hepatitis B virus]
Length=281

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   214   AKYLWGWASVR   224
```

>gb|ABV57415.1| large S protein [Hepatitis B virus]
Length=400

```
 Score = 36.3 bits (78),  Expect = 0.42
 Identities = 10/11 (90%), Positives = 10/11 (90%), Gaps = 0/11 (0%)

Query   1     AKYLWVWASVR   11
              AKYLW WASVR
Sbjct   333   AKYLWGWASVR   343
```